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FARMERS' BULLETIN No. 1045

LAYING OUT FIELDS FOR TRACTOR PLOWING

TRACTOR PLOWING usually requires methods of laying out the land different from those followed when plowing with horses and an ordinary plow.

Farmers plowing with a tractor for the first time are often at a loss for the most satisfactory method of laying out their fields.

A scheme admirably suited to one size and type of tractor under certain field conditions may not be satisfactory for some other size and type under different conditions.

This bulletin embodies descriptions of the more common methods recommended by farmers who plow with tractors.

Among these will be found methods of laying out land suited to nearly every farm and to fields of different shapes.

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LAYING OUT FIELDS FOR TRACTOR PLOWING

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FACTORS TO BE CONSIDERED IN MAKING PLANS FOR TRACTOR PLOWING

FARMERS who plow with tractors desire to do a high-class job of plowing over the entire field and to reduce to a minimum the time spent in turning and in traveling with plows out of the ground. To accomplish this they must choose the method which is best suited to their conditions. Many circumstances must be considered in deciding just what method is best for a particular field with a particular outfit. Every job presents a problem of its own, and there is no one method which is best for all cases.

The two classes of laying out fields for plowing include those methods in which the plows are lifted out of the ground in crossing the ends and those where they are not lifted. The advantages of the first class are that short turns are eliminated, except in some cases at the beginning and ending of the lands and it is generally possible to do a little higher quality of plowing at the corners or turns. The advantages of the second class are that little or no time is lost in traveling with the plows out of the ground, and that ordinarily the number of deadfurrows and backfurrows will be considerably less.

Time spent in turning or running with the plows lifted reduces the acreage which can be plowed in a day; on the other hand, the making of short turns is awkward with some tractors, particularly the larger ones, and the operator often has difficulty in getting the outfit in the correct position for starting the furrow when such turns are made. Though it may pay to make some additional effort to avoid short turns when using a large outfit, it should be borne in mind that the loss in time and fuel due to making long idle runs across the ends of the field is just as serious with the large outfit

as it is with the small, easily handled tractor. From the standpoint of time lost in idle running, the size of the outfit should be considered only with reference to the relative difficulty in making short turns.

In deciding the method to use, the ease of handling the tractor and plows is not always necessarily the most important thing to consider. In regions of heavy rainfall, it may be best to make narrow lands with frequent deadfurrows and backfurrows as an aid to drainage; in more arid regions the reverse may be true. In other cases the contour of the ground or the shape of the field may be such as to determine almost entirely the method that must be followed.

If the field is rectangular and level, or nearly enough so that the irregularities do not have to be considered, the choice between a method of the first class and one of the second class will usually depend on how hard it is to handle the tractor and plows in making short turns and how objectionable are additional backfurrows and deadfurrows. To keep their fields level, some farmers choose one method one year and alternate with some other method the following year.

METHODS IN WHICH PLOWS ARE LIFTED AT THE ENDS

If it is decided that a method of the first class in which the plows will be out of the ground in going across the ends of the field is to be used, it must then be decided into how many lands the field should be divided for best results, how wide to leave the headlands on which to turn, and where to set the guide stakes or markers.

WIDTH AND NUMBER OF LANDS

The wider the lands are made the fewer will be the deadfurrows and backfurrows, but the greater will be the time consumed in idle running across the ends. Some idea of the distance traveled with the plows out of the ground can be obtained by considering a specific case. Suppose a field 40 rods wide is to be plowed in this manner, one land at a time, and that it is laid off into five lands of 132 feet each. If the tractor is pulling three 14-inch plows, it will take about 37 trips across the field to plow out each land. If we ignore the extra distances that the tractor must cover in swinging out of the furrow and back into it again, and in making the short or figure-eight turns in starting a backfurrow land or finishing a deadfurrow, the average length of travel across the ends—that is, the average distance in a straight line from where the plows are taken out of the ground to where they enter it again—is half the width of the land, or 66 feet. This makes 2,442 feet, or almost a half mile for each land, and almost 2½ miles of idle travel in plowing the entire field. If the field were laid out into 11 lands, each 60 feet wide, the total unproductive travel would be about 1 mile; if the field were laid out in only 3 lands, it would be about 4 miles.

The longer time necessary to make the difficult turns at each backfurrow or deadfurrow, which must be added to the time to travel these straight-line distances, will reduce the advantage of the narrow lands in this respect to a certain degree; but ordinarily a 3-plow tractor, which has a comparatively short turning radius, and

with which the making of short turns does not take a great deal of time, will plow a strip 40 rods wide laid out in five lands in about an hour's less time than if it were laid out in three lands. A 2-plow tractor will have to make one and one-half times as many trips across the field to plow a strip of a given width, and consequently the time lost in idle running will be about 50 per cent greater than with a 3-plow outfit. A 4-plow outfit will have to make only half as many trips as the 2-plow outfit, and so will lose only half as much time.

The length of the field is also of importance in deciding the width of the land, since the time lost in turning on a short field for a given width of land is much greater in proportion to the total time required to plow it than is the case with a long field. For this reason a wider land is usually selected when the field is long than for short fields.

Each farmer must decide for himself whether the saving in time in making narrow lands is sufficient to offset the disadvantages of the extra deadfurrows and backfurrows and any difficulties of making short turns. The most popular width under average conditions seems to be about 100 feet for a 2 or 3 bottom plow. However, if the field has no irregularities, its entire width should be measured and divided into lands of approximately equal width.

HEADLANDS

If the field is fenced on all sides, it will usually be better to leave an unplowed strip of uniform width entirely around the field, to be finished after the body of the field is plowed out, than to have the lands extend to the fences on the sides. A headland extending entirely around the field can be plowed by going repeatedly around the field until it is finished, thus eliminating short, awkward turns.

If one end of the field is unfenced and the outfit can be pulled out into a road or lane or an adjoining field for turning, it may be preferable to plow up to the fences on the two sides, as the body of the field is being plowed, and leave only the one headland across the end of the field which is fenced. Such a headland may be plowed later with either a deadfurrow or backfurrow through the center.

The width of the headland will depend largely on the turning radius of the tractor with attached plows. Some farmers with very easily-handled outfits do not leave more than 10 to 15 feet; however, any extra ground in the headland can be plowed just as quickly as if it were plowed with the body of the field, and plenty of room should always be left to allow easy turning and to get the outfit headed in exactly the right direction on entering the furrows. Also the wider the headland, the less is the tendency to go over the same ground repeatedly in turning at the ends and seriously packing it when plowing out the body of the field. Headlands 20 to 40 feet in width for small tractors and even as much as 100 feet for large tractors will usually be preferable to very narrow ones. With most tractors, the width of the headlands should be at least twice as great as the length of the outfit with the plows attached.

Many farmers plow across the field along the line of each headland, throwing the furrow toward the center of the field, before starting on the body of the field. This gives a good guide for lifting the plows and letting them into the ground again at the ends and leaves a much more uniform headland. The plows will also enter the ground more quickly when starting the furrow at the end, if a guide line has been plowed.

SETTING STAKES AND MARKERS

If the field is to be finished up in the best manner, with no irregular unplowed strips between the lands or at the edges, it is essential that care be taken to have the headland of the same width all around

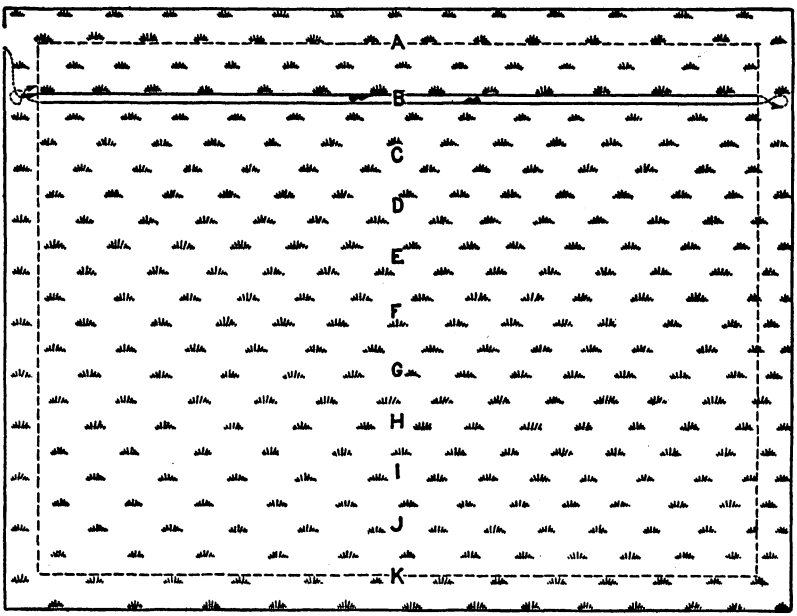

FIG. 1.—Method I, first stage: A headland all around the field, the body of the field to be plowed in successive backfurrow and deadfurrow lands. Note the loops made at the ends on the first round to avoid short turns. The symbols representing plows show the direction of travel

the field, to have the distances carefully measured when starting new lands, and to have the first furrows as nearly straight as possible. A little extra time taken in measuring all the necessary distances and setting plenty of stakes for guides will usually be more than offset later by the time saved in plowing.

Most farmers prefer to "step off" the distances for setting stakes rather than use any more precise measure, and, as far as accuracy is concerned, this method of measurement will usually be satisfactory.

METHOD I

This is perhaps the most popular method of those in which the plows are kept out of the ground in crossing the ends of the field and its use also results in the least amount of travel with the plows lifted

for a given number of deadfurrows. By this method the body of the field is plowed in successive backfurrow and deadfurrow lands beginning at one side of the field and finishing at the other.

The first step in this, as in all methods where the plows are lifted at the ends, is to measure off and stake out the distance to be left for a headland, as indicated by the dotted line around the field in Figure 1. The width of the body of the land inside this dotted line should then be measured and the number and width of the lands decided upon. An odd number of lands should always be selected as there should be one less deadfurrow land than of those with a backfurrow.

The distance *AB*, half the width of the proposed lands, is then measured off and a backfurrow made at *B* as shown in Figure 1. Plowing is continued around this backfurrow until the line *A* is reached and the land from *A* to *C* is finished. Next measure off the distance *CF* equal to three times the distance *AB* and lay out another backfurrow at *F* as shown in Figure 2.

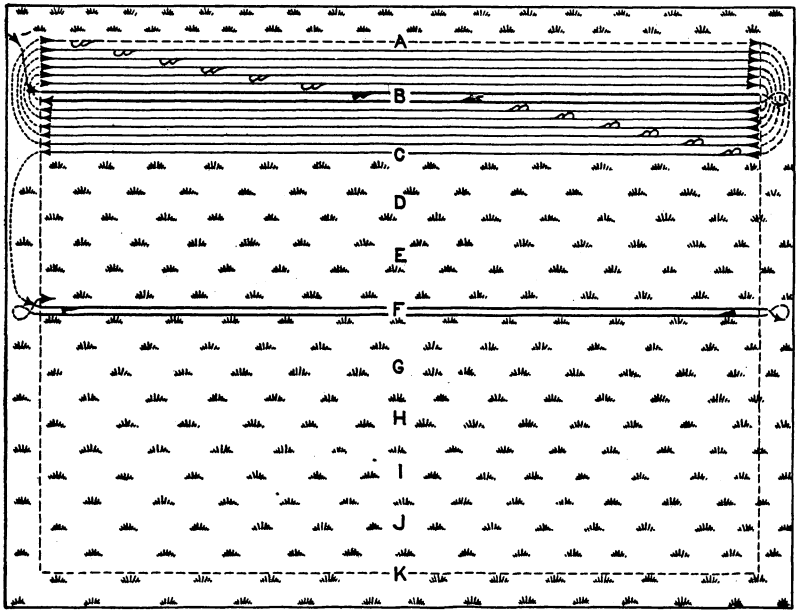

FIG. 2.—Method I, second stage: A new backfurrow is laid out at *F* after the land is completed around a backfurrow at *B*, as in Figure 1

Plow around this backfurrow until the plowed land is as wide as the distance from *A* to *C*; that is, until the lines *E* and *G* are reached, as in Figure 3. Then the land from *C* to *E*, still to be plowed, will be of the same width as each of the two lands already plowed. This is then plowed by turning to the left from the furrow through *E*, as shown in Figure 3, plowing down the line at *C*, where an open furrow was left when the first land was finished, and finishing out the land to a deadfurrow at *D*. There will then be a backfurrow at *B*, and another backfurrow at *F*.

The ground between *G* and *K* is next measured off and plowed in the same manner as that between *C* and *G*, and this process is repeated until the entire body of the field is completed.

To illustrate by example, let us suppose that it is desired to plow a field with a width of 900 feet in lands as nearly 100 feet wide as is possible and that a space 30 feet wide is to be left around the field to be finished as a headland. The body of the field will then be 840 feet wide. Since there should be an odd number of lands,

either seven or nine may be selected. If the number of lands is seven, each land will be 120 feet wide and there will be three with deadfurrows and four with backfurrows; if the number of lands is nine, each land will be 93 feet, 4 inches wide and there will be four with deadfurrows and five with backfurrows. In the first case the distance *AB* would be 60 feet; in the second case it would be 46 feet 8 inches.

If Method I is used continuously year after year the backfurrows will in time form ridges and the deadfurrows will form ditches of considerable size. This can be prevented to some extent by varying the width of lands and headlands each time the field is plowed. A better way to prevent the formation of these ridges and ditches is to alternate Method I with Method II, or with some method of the second class.

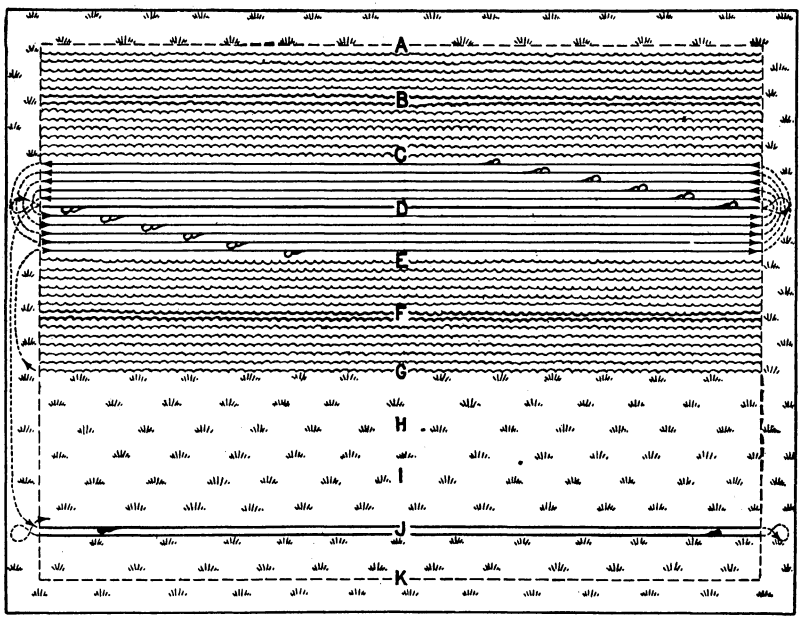

FIG. 3.—Method I, third stage: The field shown in Figure 2 with the land from *E* to *G* completed around the backfurrow *F*. The land from *C* to *E* plowed out, leaving a deadfurrow at D, and a new backfurrow started at *J*

METHOD II

This method consists of laying out the field exactly as in Method I with the exception that a backfurrow land is plowed in place of each deadfurrow land and a deadfurrow land in place of each backfurrow land.

The distance *AD*, Figure 4, is first measured off equal to one and a half times the selected width of lands and a backfurrow land is plowed starting at *D*. (*D* is the location of the deadfurrow formed when plowing the year previously by Method I.) The plowing of this backfurrow land is continued until its width is equal to *CE*. (This is the width of the deadfurrow land plowed the year previously by Method I.) A deadfurrow land is then started around the area *AC*, Figure 5, and continued until this land is completely

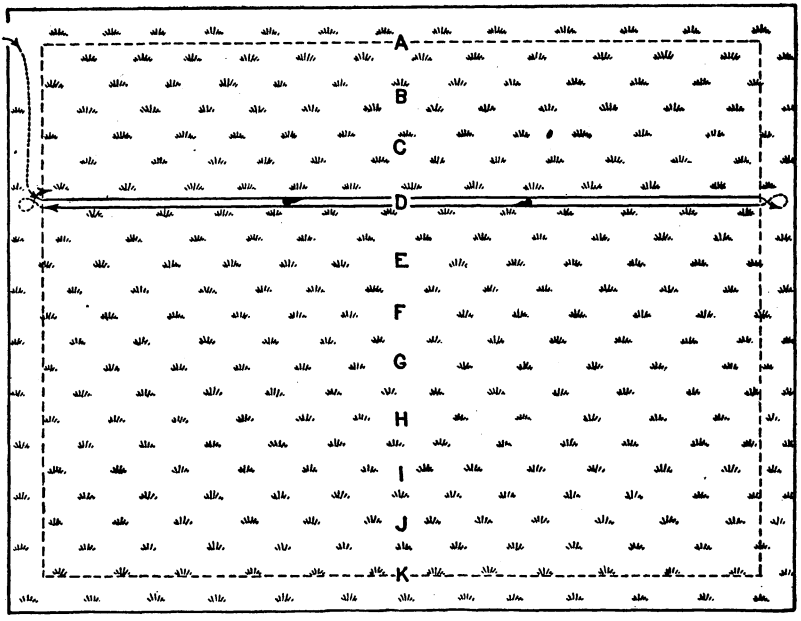

FIG. 4.—Method II, first stage: This method consists in laying out the field as in Method I, except that a backfurrow is plowed in place of each deadfurrow and a deadfurrow in place of each backfurrow. The first backfurrow is started at *D* instead of at *B* as in Method I

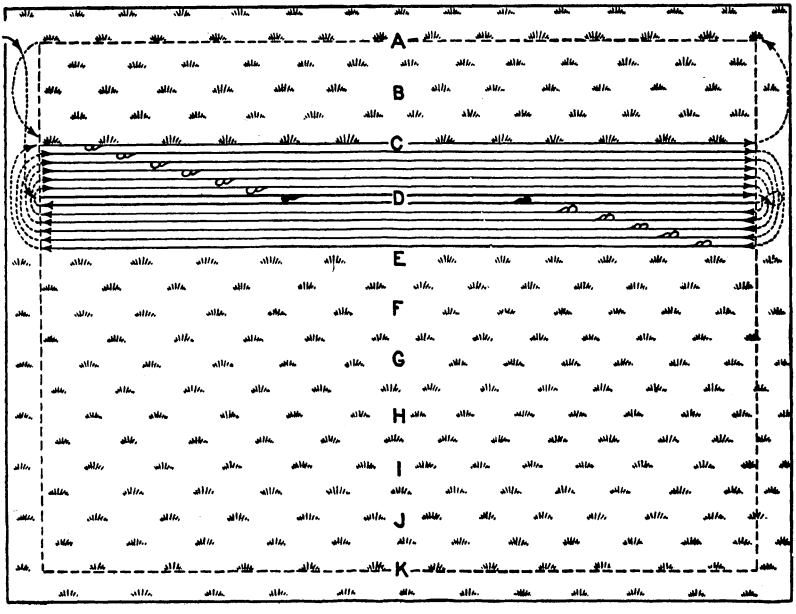

FIG. 5.—Method II, second stage: When the width of the backfurrow land around *D* is equal to *CE*, a deadfurrow land is then started around the area *AE*

plowed. (A deadfurrow will result at *B* where a backfurrow was formed the year previously by Method I.)

A second backfurrow land is next started at *H*, Figure 6. (*H* is the location of the second deadfurrow formed the year previously by Method I.) The process is repeated until the body of the field is plowed. Obviously there will be an even number of deadfurrow lands and an odd number of backfurrow lands when the field is completely plowed by this second method.

Several innovations to the two methods just described have been used to obviate short turns. They all require a greater amount of travel with the plows out of the ground and since the majority of tractors now on the market are so designed that reasonably short turns can be made with very little difficulty it does not seem necessary to describe them.

PLOWING THE HEADLAND

If a headland has been left on all four sides of the field as in Figure 7, it can be plowed by going around the body of the field to the right as indicated

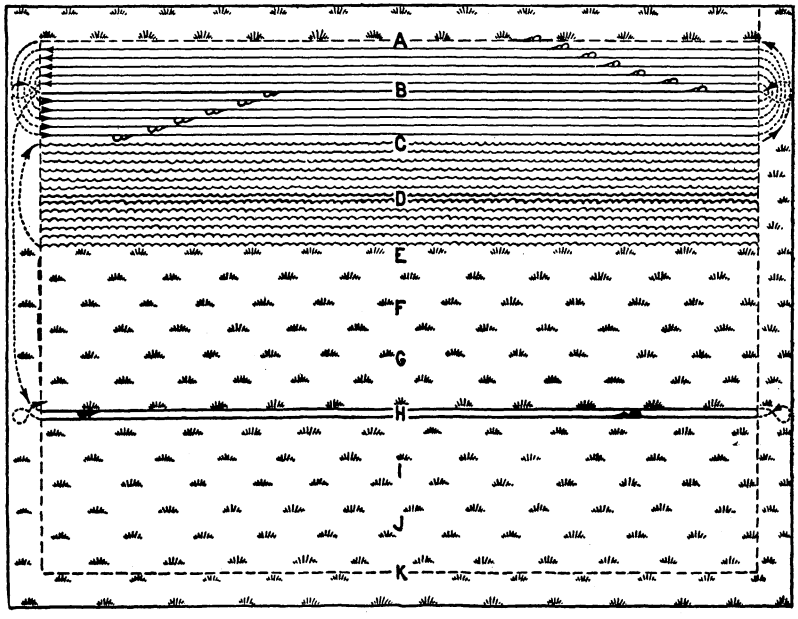

FIG. 6.—Method II, third stage: A new backfurrow land is started at *H* after the deadfurrow land around *AE* is completed as in Figure 3

and throwing the furrow toward the body of the field or by going in the opposite direction and throwing the furrow toward the fence or outside. The careful plowman will try to avoid turning the earth away from the fence or vice versa, in successive plowings.

When the body of the field is plowed clear out to the fence on each side and headlands left only across the ends, they may be plowed as described under Method I or II (p. 4), according as a backfurrow or deadfurrow is desired. In this case a rectangular piece, usually somewhat larger than the triangular pieces in the corners in Figure 7, will be left in each corner of the field.

If it is intended to use horses to finish the corners, it will not pay to spend too much time in trying to get these corners as small as possible with the tractor. It may also pay to plow the last furrow or two near the fence with the horses rather than to spend time in

changing the hitch of the plow or in going clear around the field to turn a strip narrower than the total width of the plows.

METHODS IN WHICH PLOWS ARE LEFT IN THE GROUND IN GOING ACROSS THE ENDS

The objections to the methods already described are that they necessitate a considerable amount of travel with the plows idle, and that there are many deadfurrows and backfurrows if an attempt is made to reduce the amount of this idle running. As before stated (see p. 1), the use of any of these methods usually results in a somewhat better job of plowing than the methods involving an attempt to keep the plows in the ground all the time the tractor is moving; but many farmers think that the possible reduction in quality of

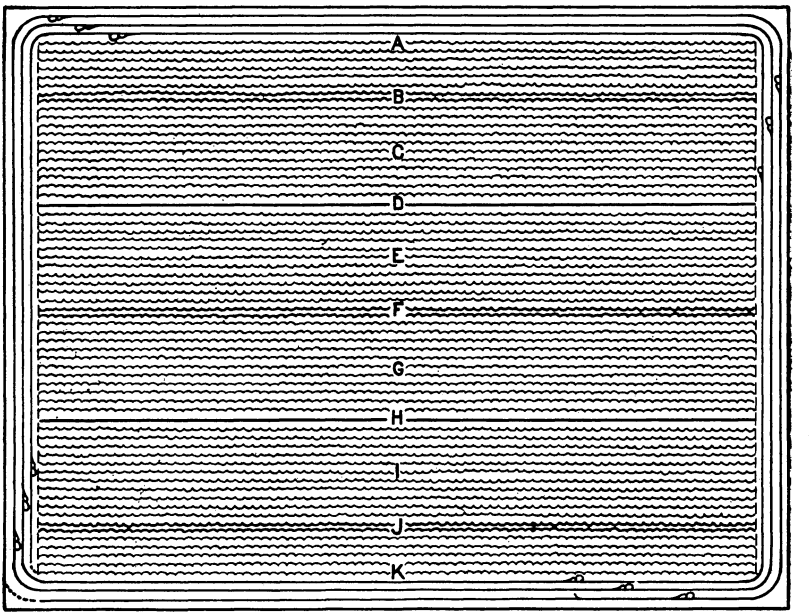

FIG. 7.—Plowing the headland. This is done by plowing around the field, cutting the corners sufficiently to insure easy turns, throwing the furrows toward the plowed land

the work is not sufficient to offset the saving of time effected by eliminating the idle running.

METHOD III

By Method III a rectangular field is plowed around a single backfurrow at the middle of the field. The plows are lifted only in making the comparatively few short turns on the first few trips across the field. After the plowed land becomes wide enough for the outfit to turn around the ends, the plows are never lifted from the ground until the field is finished.

The position and length of the backfurrow (from *A* to *B* in Figure 8) at the center of the field is determined in much the same manner as is often done in laying out a field for backfurrow plowing with horses. Make the distance from *A* to *G* enough shorter than from *A* to *C* so that when the land is rounded

off at the ends and plowing entirely around the land is begun, as indicated in Figure 9, the furrow across the end will be the same distance from the edge of the field as are the furrows down the sides. The point *B* should be the same distance from the end of the field as *A*.

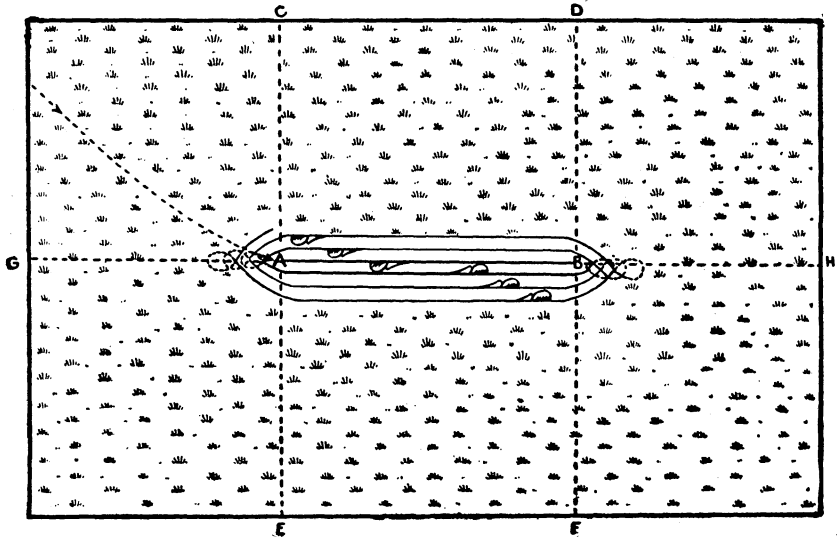

FIG. 8.—Method III, first stage: To begin plowing in the center of the field, a backfurrow *AB* is laid out in the center of the field, the distance from *A* to *C* equal to that from *A* to *E*. The continuation of this plan is shown in Figure 9

On the first few trips across the field, pull the outfit over to the right every time as the end is approached, so as to get the corners rounded off as soon as possible sufficiently to permit the outfit to make the turn without lifting the

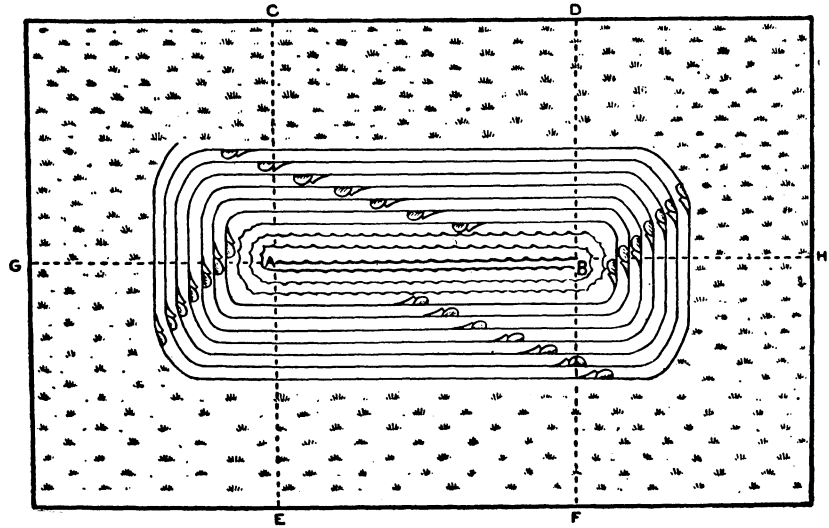

FIG. 9.—Method III, second stage: Plowing around the central backfurrow started in Figure 8 until the field is finished

plows. Lift the plows and make a complete circle to the left in turning. The number of times the plows will have to be lifted at the ends and the outfit turned to the left in order to get the ends in shape to go around with the plows

in the ground will depend mostly on the turning radius of the outfit and the width of the strip plowed at each trip. For some large outfits the land may have to be 75 feet or even more in width before this can be done, while a small outfit with a short turning radius may be able to turn about a strip half as wide.

Some care will be necessary in steering the tractor at the turns after the land becomes wide enough to permit leaving the plows in the ground continuously, as in Figure 9, if the turns are to be kept abrupt. The shorter the turns are kept the smaller will be the triangular pieces left in the corners of the field at the finish. However, if the tractor runs with one or two of the wheels in the furrow, it may be preferable to let the corners round off as they will and finish with horses later.

If the field is square, or nearly so, it can be plowed in two or more lands, each one laid out according to this method. In such a case extra pieces, each approximately twice as large as the unplowed

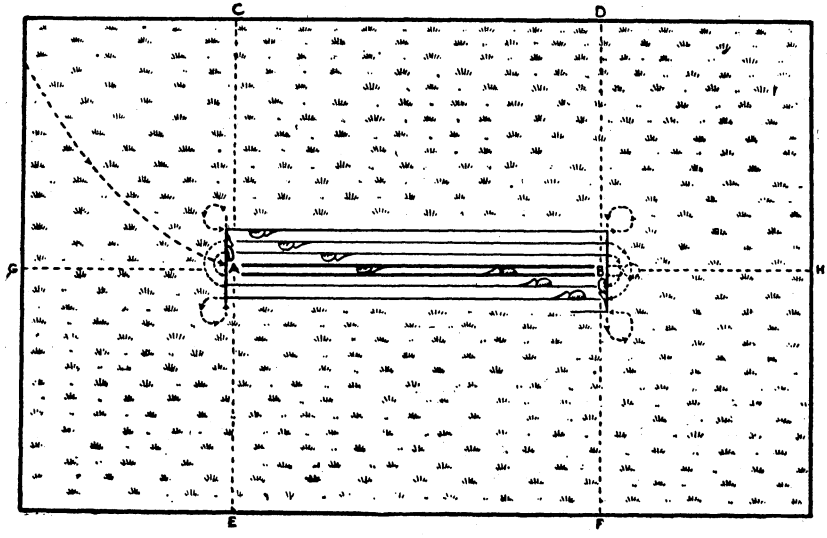

FIG. 10.—Method IV, first stage: Plowing a field in one land by starting a backfurrow in the center of the field, the same as in Figure 8. The corners are kept square by making short turns to the left and swinging around so as to plow across the ends. The continuation of this plan is shown in Figure 11

pieces at the corners, will be left at the ends of the field between the lands.

METHOD IV

In plowing by Method IV a rectangular field is laid out, just as in the preceding method, and the entire field plowed in one land about a single backfurrow.

In a field such as that shown in Figure 10, the distances should be measured as was shown in Figure 8. The backfurrow is laid out along the line from *A* to *B* and the plows lifted at the ends on the first few rounds, as indicated in Figure 10, until the land is wide enough to warrant plowing across the ends. Then, as the plows are lifted the outfit is turned sharply to the left and brought around as indicated by the dotted lines at the corners in Figure 10, so that it will be in line for plowing across the end when the plows reach the place

where the furrows should begin. The corners are kept square by turning in this way (see fig. 11) until the furrows get so near the fence that not enough room is left to make such a turn. Then the corners must be rounded and the tractor turned to the right.

Since this scheme keeps the corners square, except for the last few rounds, approximately the same amount of ground will be left

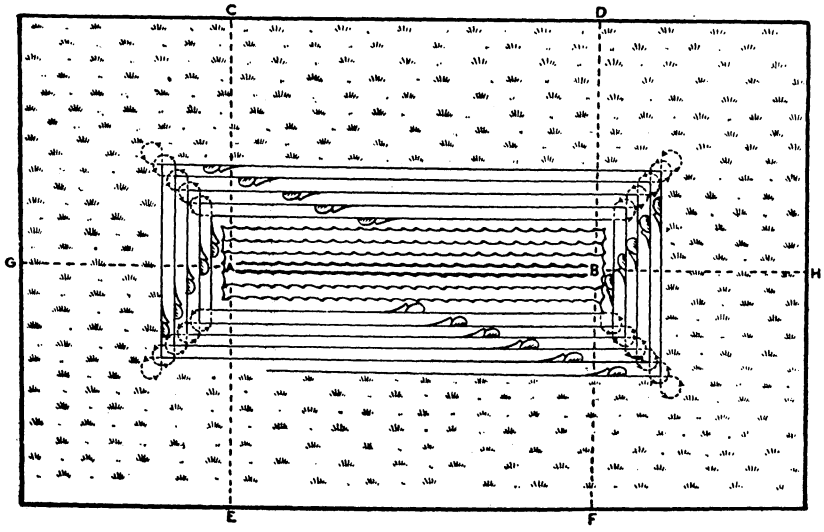

FIG. 11.—Method IV, second stage: A field plowed around a central backfurrow, with square corners and furrows across the ends. This is the continuation of the plan shown in Figure 10

unplowed in the corners of the field as there is in plowing the headland around a field, the body of which has been plowed by running with the plows idle across the ends. (See fig. 7.)

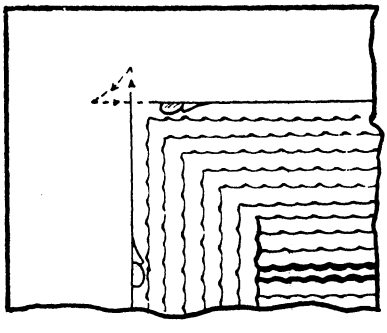

FIG. 12.—Method IV, corner turns: The square turns shown in Figure 11 are made by backing around the corners on a triangle

Except for these last few rounds, the net result of plowing a field by this method is the same as is ordinarily attained by plowing a backfurrow land with horses. The greatest objection is probably the time and travel necessary to make the turn to the left at each corner. This travel at each corner will amount to just about a complete circle. For a tractor with a 20-foot turning radius, this means something over 100 feet of travel. Many large tractors pulling several plows have a considerably greater turning radius than this. Thus the loss of time in many cases would be too great for this method to be advisable.

If the plows are hitched to the tractor in such a way that the machine can be backed easily, the turns can be made by backing it around through a quarter of a circle, as indicated in Figure 12, with a comparatively small loss in time. Such an outfit can make these turns until the field is practically finished.

METHOD V

In this method the operator starts plowing at the outside of the field, as shown in Figure 13, throwing the furrow toward the fence and turning to the left at the corners without lifting the plow. A rectangular field like that shown is plowed in a single land with one deadfurrow. The corners will have to be rounded to a certain extent on the first trip around the field, and kept this way throughout the plowing so as to permit the tractor to make the turns without encroaching too far on the plowed ground or getting the furrows irregular and crooked near the corners. The plows will be pulled away from the last open furrow to a certain extent in making the turns and the diagonal strips running from the ends of the deadfurrow to the corners of the field will usually have to be replowed. (See figs. 14 and 15.)

It is not necessary to measure any distances when this scheme of plowing is followed, and this will save some time over any of the schemes heretofore described. On the first round the plows can often be set over to the right and the ground turned nearer the fence

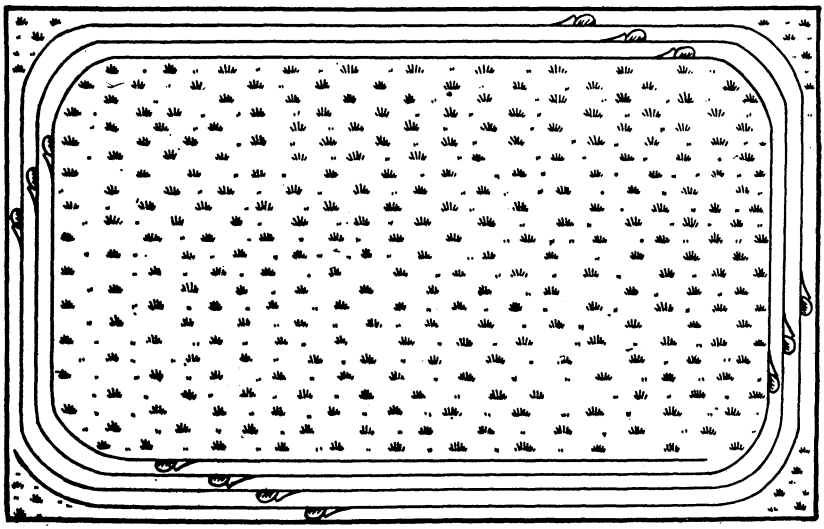

FIG. 13.—Method V, first stage: Plowing around a rectangular field by turning the furrows toward the fence, rounding the corners enough to permit turning without lifting the plows

than is possible in the two preceding backfurrow methods. The plows are left in the ground from the time the field is entered until the deadfurrow at the center is reached. This feature makes the method desirable if the plow is not equipped with a power lift. A field with slightly irregular or crooked boundaries can be plowed by following this scheme, practically as good a job being possible with no more effort than in a rectangular field. This method is very popular with many tractor operators and has been adopted almost exclusively where disk plows are used.

The body of the field can be plowed to a deadfurrow in the center and the diagonal strips running in from the corners where the turn is made may be replowed one at a time or left to be plowed with horses. When this method is used it is necessary to pull out on to the plowed ground to turn, as the deadfurrow is approached and the unplowed land becomes narrow, also it is necessary to travel over

the plowed ground in making the turns at the center of the field when plowing the diagonals. Unless horses are to be used for this, one of

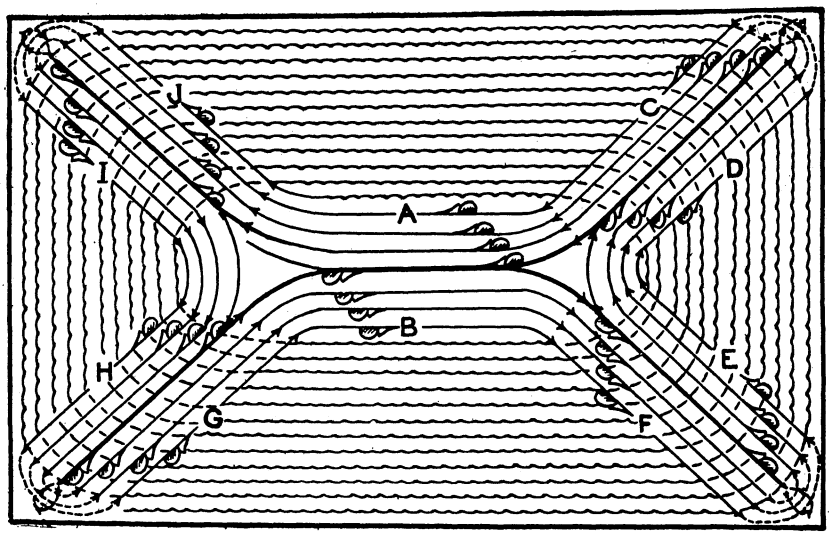

FIG. 14.—Method V, final stage: Plan for plowing the diagonal strips which are left imperfectly plowed at the turning points, leaving deadfurrows at the finish

the schemes shown in Figures 14 and 15, by which the diagonals are plowed out at the same time the deadfurrow is finished, will usually be preferable.

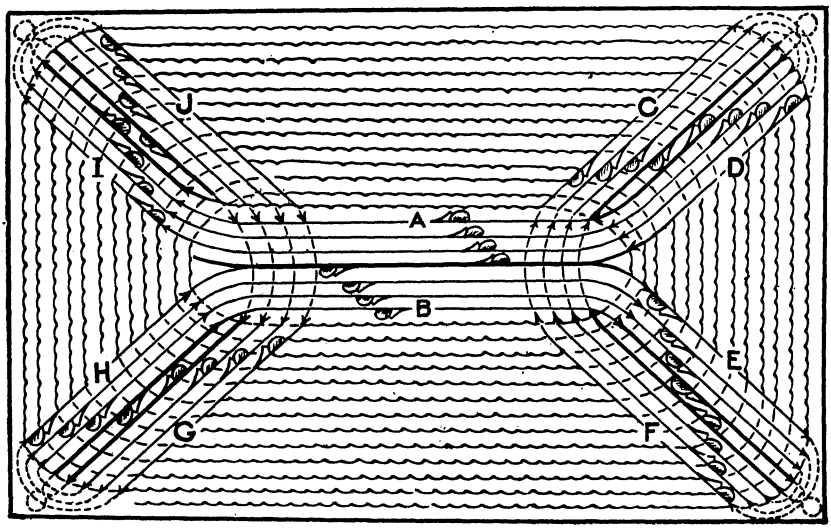

FIG. 15.—Method V, final stage: Another plan for plowing the diagonal strips which are left at the turning points in Figure 13, leaving a backfurrow in these and a deadfurrow in the center

By the scheme shown in Figure 14, a deadfurrow is left along each diagonal, and by the scheme shown in Figure 15, a backfurrow is made along the

middle of the diagonals, with open furrows on each side. If the first-mentioned scheme is to be employed, when the distance from *A* to *B* (see Figure 14) becomes the same as that from *C* to *D*, *E* to *F*, etc., the width to be replowed along the diagonals, turn to the right from the furrow next to *A* and follow along the line indicated through *J*, *I*, *H*, *G*, *B*, etc., and continuing in this way until the diagonals and center are finished.

The tractor will have to do very little traveling over the plowed ground and if care is taken to get all the distances exact, the whole field, with the exception of the parts left for making the short turns at the corners, can be finished at the same time. The only times the plows are lifted are on the few short turns at the corners in plowing the diagonals.

If it is desired to have backfurrows along the diagonals instead of dead-furrows, the method of procedure will be as shown in Figure 15. It is similar to that shown in Figure 14 except that the backfurrows are thrown up on the first trips along the diagonals. The turn is to the right at the corner of the field each time, the plows are taken out of the ground in going between the two diagonals at the same end of the field, and the outfit will have to travel over the plowed ground a little more at these points.

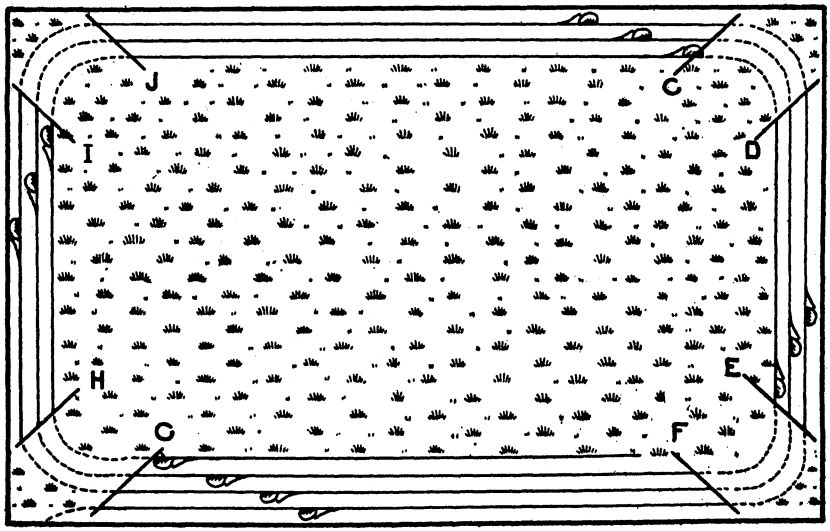

FIG. 16.—Method VI. Plowing around a rectangular field as in Method V. The plows are lifted at the turns, as shown by the dotted lines

METHOD VI

This is like the preceding method except that the plows are lifted each time at the corners in plowing the body of the field, and the diagonals are left entirely unplowed until the finish of the field. Care must be taken to get the width of all the diagonals—that is, from *C* to *D*, *E* to *F*, etc., in Figure 16—the same if either of the methods shown in Figures 14 and 15 is to be used in finishing the field. The width should be ample for turning the outfit and getting it in line with the furrow, before the point where the plows are to be put into the ground again is reached. It will be better to make an extra round in plowing out the diagonals than to be cramped for space at every turn in plowing the body of the field.

IRREGULAR FIELDS

Irregular fields have such a variety of shapes and present such a variety of conditions that it is impossible to give any definite directions applicable to all. If the field is comparatively level, and the irregularities are confined to the boundaries on one or two sides, some one of the methods described for rectangular fields can usually be adopted.

Figure 17 illustrates a field with the irregularities confined to a stream which forms the boundary at one end. Usually such a field can be plowed satisfactorily by one of the methods where the plows are taken out of the ground in going across the end, as is shown in the figure. The procedure will be the same as in a rectangular field except in laying out the headland across the end adjacent to the stream. There the line for lifting the plows and letting them into the ground must be made parallel to the stream if the field is to be

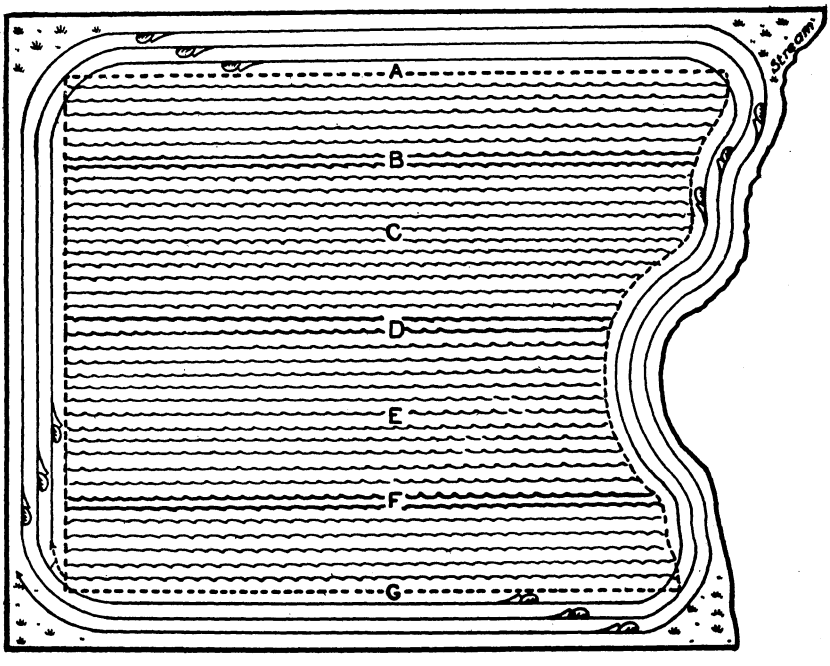

FIG. 17.—Plan for plowing a field having one irregular side

finished without undue loss of time in plowing the headland along the stream. If the headland is plowed by turning to the left so that the first round will take in the irregularities along the stream, it will probably be less difficult to finish it satisfactorily than if it is plowed by turning to the right, as shown in the figure.

If the irregularity is simply due to a road, railroad, or a farm boundary which is a straight line but does not run at right angles to the other boundary lines that join it, the problem of laying out and plowing the headland will be little, if any, more difficult than in a rectangular field.

Method V or VI (see p. 13) can often be used satisfactorily for plowing such fields. If the irregularity is along one or both ends, but the sides of the field still straight and parallel, the irregularity will entirely disappear before the deadfurrow is reached.

A good method of plowing a triangular field is shown in Figures 18 and 19. This is really a variation of Method VI, described on page 15. The body of the field is plowed by starting next to the fence, going round and round the field, turning always to the left, and lifting the plows at the corners. The distances

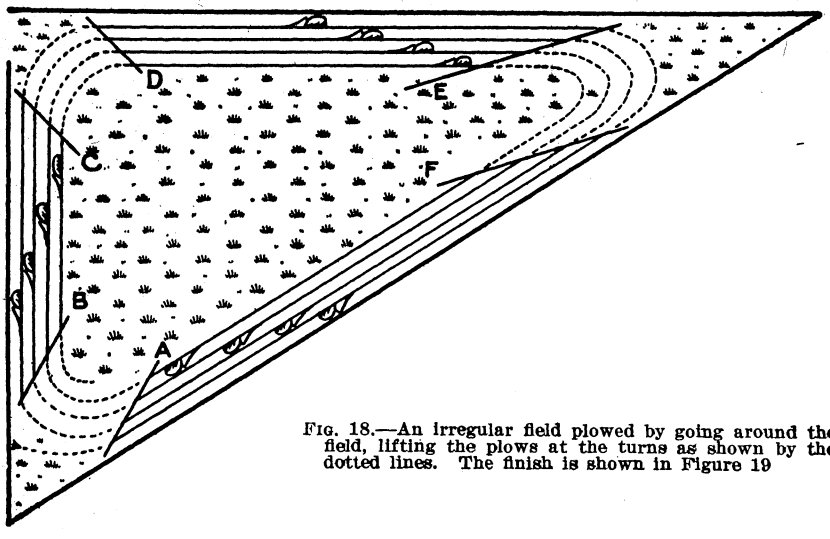

FIG. 18.—An irregular field plowed by going around the field, lifting the plows at the turns as shown by the dotted lines. The finish is shown in Figure 19

from *A* to *B*, *C* to *D*, and *E* to *F*, in Figure 18, should all be made the same, and should be great enough to permit easy turning at the most acute angle of the field. That is, in a field such as that shown, the distance from *E* to *F*, which must be left for the sharp turn at this corner, should determine the distances from *A* to *B* and *C* to *D*. When the body of the field is finished, there will be

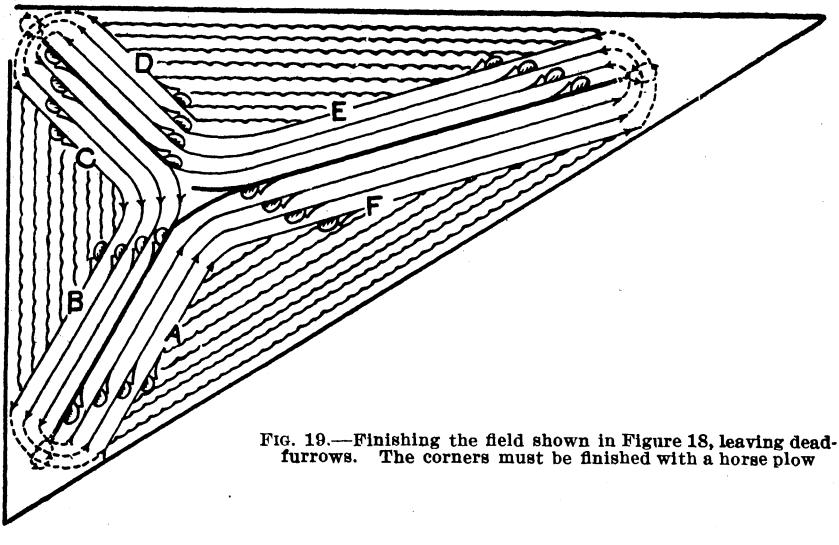

FIG. 19.—Finishing the field shown in Figure 18, leaving dead-furrows. The corners must be finished with a horse plow

three strips, all the same width, one extending into the center of the field from each corner, left to be plowed in the manner indicated in Figure 19.

A four-sided field which has one of the long sides not parallel to the other can be laid out into two parts, one a rectangular plat and

the other a triangular plat as illustrated here. The rectangular part can be plowed in any desired manner and the triangular part as here described.

If a field which would otherwise be rectangular has had a square or rectangular piece taken off one corner for a feed lot, orchard, part of the farmstead, or the like, it will usually be better to treat it as two separate fields in laying it out, with the imaginary dividing line between the two, an extension of the line of the lot or orchard, which is parallel to the longest side of the field.

When the character of the field is such that its contour must be taken into account, the best method of plowing will depend always on the peculiarities of the field, and it would be useless to attempt to give any general directions.

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